

What is claimed is:

1. A motor with aerodynamic bearing comprising:

a base;

5 a shaft fixed such that the shaft projects upward from a part adjacent a central portion of the base;

a sleeve arranged at an outer circumferential part of the shaft via a gas space;

a rotor provided at an outer circumferential part of the sleeve, arranging permanent magnets; and

10 a coil provided at the base such that the coil locates around an outer circumferential part of the rotor.

2. A motor with aerodynamic bearing comprising:

a base;

15 a shaft fixed such that the shaft projects upward from a part adjacent a central portion of the base;

a sleeve arranged at an outer circumferential part of the shaft via a gas space;

a coil provided at the base such that the coil locates around an outer circumferential part of the sleeve;

20 a rotor provided at an outer circumferential part of the coil, arranging permanent magnets; and

a hub supports the sleeve and the rotor and covers an upper portion of the shaft such that the coil locates around an outer circumferential part of the rotor.

3. A motor with aerodynamic bearing comprising:

5 a base;

a sleeve fixed such that the sleeve projects upward from a part adjacent a central portion of the base;

a shaft arranged into the sleeve via a gas space;

a rotor provided at an outer circumferential part of the sleeve, arranging permanent
10 magnets; and

a coil provided at the base such that the coil locates around an outer circumferential part of the rotor.

4. A motor with aerodynamic bearing according to claim 1, further comprising:

15 a hub supports the sleeve and the rotor and covers an upper portion of the shaft; and

a back yoke attached to the hub such that the back yoke locates around an outer circumferential part of the coil.

5. A motor with aerodynamic bearing according to claim 1, further comprising:

20 the coil which is a coreless waveform continuation coil;

a back yoke provided such that the back yoke locates around an outer circumferential part

of the coreless waveform continuation coil;

a hub supports the sleeve, rotor and back yoke and covers an upper portion of the shaft; and

a color wheel attached to one of the hub and back yoke, projecting outward along the direction of the shaft core and right angle of the shaft.